

REMARKS/ARGUMENTS

Claims 1-4, 9-11, and 14-19 are currently pending. Claims 14, 17, and 19 have been amended. Claim 14 has been amended to improve the claim language. No new matter has been added.

Applicants would like to thank the Examiner for his discussions on March 29, 2004 regarding the application and instant Office Action.

The specification at page 5, line 31 is objected to. Page 5 at line 31 has been amended to address the Examiner's concerns. Also, the specification in the paragraph beginning at page 2, line 20 has been amended to address typographical issues.

Claims 1 and 4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Thomas (U.S. Patent No. 3,654,570). Claim 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Thomas in view of Heiter (U.S. Patent No. 5,933,770). Claims 2, 9-11, and 14-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Barnes et al. (U.S. Patent No. 5,793,162) in view of Thomas.

The rejection of claim 1 is respectfully traversed as Thomas does not show or suggest every limitation of claim 1. Thomas, as understood, discusses a junction having two conductors that are inductively coupled. The Thomas conductors are inductively coupled for odd multiples of a quarter wavelength (λ) of applied energy. That is, the Thomas conductors are coupled for $\lambda/4$, $\lambda 3/4$, $\lambda 5/4$, $\lambda 7/4$, etc. See Thomas at Col. 2, lines 45-55. As the Thomas conductors are coupled in odd multiples of λ , Thomas conductors are not coupled for at least one λ . Specifically, the Thomas conductors are coupled greater or less than one λ (in quarter λ increments), and not one λ . As Thomas does not show or suggest inductors that are coupled for one λ , Thomas does not show or suggest coupling inductors that are within the wavelength range recited in claim 1, namely "wherein said first and second transmission lines are inductively coupled for an inductive length, said inductive length being at least one wavelength of ac energy supplied by said ac power source." Moreover, there is no motivation to modify

Thomas to couple inductors for one λ , as signals provided by Thomas's output terminals B and C are in quadrature with one another. Modifying the length over which the Thomas conductors are coupled would change the quadrature phase difference between the signals output at terminals B and C. MPEP § 2143.01 states that if a proposed modification would render the prior art invention being modified unsatisfactory or its intended purpose, then there is no suggestion or motivation to make the proposed modification, referring to *In re Gordon*, 733 F.2D 900, 221 USPQ 1125 (Fed. Cir. 1984). As discussed above, changing the length over which the Thomas conductors are inductively coupled would change the quadrature nature of the output from the Thomas conductors, therefore, there is no motivation to modify the Thomas device to inductively couple the Thomas conductors for one wavelength. Therefore, there is no motivation to modify Thomas to recite the limitations of claim 1. Therefore, Thomas does not show or suggest every limitation of claim 1, and therefore, Thomas does not render claim 1 obvious.

The rejection of claim 9 is traversed as Thomas in view of Barnes does not show or suggest every limitation of claim 9. For at least the reasons discussed above with respect to claim 1, claim 9 is not rendered obvious by Thomas. Barnes fails to make up for the deficiencies of Thomas. Barnes, as understood, discusses a matching network 16 that includes variable capacitors 18 and 20 that are driven by DC motors 26 and 28, respectively, to change a matching impedance between a RF frequency source and a plasma chamber. See FIG. 1 of Barnes and col. 5, lines 42 to 55. Nowhere does Barnes describe the use of a matching network that includes transmission lines that are inductively coupled for "at least one of said specified wavelength," as recited in claim 9. Therefore, Barnes fails to make up for the deficiencies of Thomas. Therefore, Thomas and Barnes do not render claim 9 obvious. For at least the same reasons that claim 9 is not rendered obvious by Thomas and Barnes, claim 14, claim 17 as amended, and claim 19 as amended are not rendered obvious, as claim 14, claim 17 as amended, and claim 19

TSUTOMU TANAKA et al.
Application No.: 10/045,515
Amdt. sent April 30, 2004
Reply to Office Action of April 7, 2003
Page 9

PATENT

as amended include limitations similar to claim 9 that were distinguished from Thomas and Barnes above.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,



Rodney C. LeRoy
Reg. No. 53,205

TOWNSEND and TOWNSEND and CREW LLP

Tel: 650-326-2400
Fax: 415-576-0300
RCL:mmm
60203648 v1